

**STRATEGY
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THE "JUST-IN-TIME" FORCE FOR THE ARMY

BY

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United States Army National Guard**

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ABSTRACT

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TITLE: The "Just-in-Time" Force for the Army

FORMAT: Strategy Research Project

DATE: 30 April 1977 PAGES: 23 CLASSIFICATION: Unclassified

With the ongoing reductions in the Department of Defense (DOD) budget, the Active Army is being stretched thinner and thinner as it attempts to satisfy growing mission requirements.

Increasing numbers of Army National Guard (ARNG) forces are being used to help support these increased missions. Recent history suggests that mission taskings to the Army will continue to proliferate as we move into the 21st century. If the DOD budget continues its current downward trends, the only answer to a viable Army, able to respond to the anticipated requirements that will likely be levied by future Administrations, lies in effective incorporation of the Army National Guard as a "*Just-in-Time*" force. This paper contends that the ARNG fills critical needs today and will be able to fulfill needed roles on a "*just-in-time*" basis as the Army transitions into the 21st century. Different training approaches will be discussed which will place mobilized ARNG units on the battlefield as synergistic force multipliers capable of mission accomplishment, not liabilities requiring extensive post-mobilization training time. An example of a new type of unit will be introduced and explained which leverages civilian skills of ARNG soldiers, allowing them to bring to the future battlefield needed skills and expertise either unavailable or in short supply in the Army.

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The United States military, and in particular the Army, is dealing with significant challenges in view of the ongoing reductions in the Department of Defense (DOD) budget.¹ Furthermore, worldwide commitments have increased and are projected to continue to challenge the U.S. Army. Increasing numbers of Army National Guard (ARNG) forces are being used to help satisfy mission requirements.² Recent history suggests taskings to the Army will continue to proliferate as we move into the 21st century.³ If the DOD budget continues its current downward trends, the only answer to a viable Army, able to respond to the anticipated requirements that will be levied by future Administrations, lies in effective incorporation of the Army National Guard as a *Just-in-Time* (JIT) force.

This paper will show that the ARNG fills critical needs today and should be able to fulfill needed roles in the Army on a *just-in-time* basis as it transitions into the next century. Second, different training approaches will be discussed which will place mobilized ARNG units on the battlefield as synergistic force multipliers capable of mission accomplishment, not liabilities requiring extensive post-mobilization training time. Finally, an example of a new type of unit will be introduced and explained which leverages civilian skills of ARNG soldiers, allowing them to bring to the future battlefield needed skills and expertise either unavailable or in short supply in the Active Army.

Setting the Stage

In the early 1970's, Secretary of Defense Melvin R. Laird recognized the economic realities of decreasing defense budgets. He reached the inescapable conclusion that a cost-effective force structure would have to increasingly rely upon the National Guard and Reserve forces. His conclusion was reinforced when the Department of Defense adopted the Total Force policy in 1973, which recognized that all of America's military - Active, National Guard, and

Reserve -- should be readily available to provide for the common defense. Each succeeding Administration has utilized this approach, recognizing that the nation gets a better return on investment by using a combination of full-time (Active) and part-time (National Guard and Reserve) forces. Further, by using this approach DOD can mobilize the American people in support of their efforts. Consequently, the Defense Department can field a capability based force for a smaller defense budget.⁴

DOD Budgetary Pressures

The Cold War gripped the United States and the world since the end of World War II, and then came to a sudden conclusion with the stunning disintegration of the Soviet Union in the early 1990's. With no perceived peer or near peer military competitor in sight, quick cries were heard from a variety of sources to reduce the military budget.

The pressures to reduce discretionary military dollars were further reinforced by the quick, relatively painless success of the Desert Storm campaign. This success reinforced the conclusions of the President, Congress and the American people that the United States is the world's only superpower. Moreover, with no perceived major military threat to the United States, the country's attentions have turned to societal, cultural, economic and other immediate and more pressing issues.

In fact, between FY 1985 (peak post-Korean War year) and FY 1997, there has been a change of minus 40 percent in terms of constant dollars in the Department of Defense budget authority. Furthermore, this downward trend will continue as DOD outlays as a share of Gross National Product are projected to drop from 3.2 percent in FY 1997 to less than three percent by FY 2001.⁵

Increasing Military Commitments

Reduction in funding translates into a smaller military and ultimately a smaller Active Army force. The irony, however, is that the military in general and the Army in particular continues to receive an increasing number of taskings for Military Operations Other Than War (MOOTW). For example, the Army had nearly 6100 soldiers involved in MOOTW in 45 different countries in the spring of 1990. By June of 1994 MOOTW commitments had increased to 21,000 soldiers operating in over 70 countries worldwide.⁶ These numbers are in addition to the 125,000 forward-stationed in Europe, the Pacific, and Panama.⁷ While the numbers don't seem particularly high based on the size of the Army, the impact is significant and the trend is ominous.

The Secretary of the Army states that "since 1989, the Army has experienced a 300 percent increase in operational deployments."⁸ On average, commitments require soldiers to deploy away from home station for 138 days a year.⁹ These ever increasing commitments have occurred while the size of the Total Army (Active, National Guard, and Reserve) was reduced by 25 percent.¹⁰

The implications of the higher operational and personnel tempo are clear. While MOOTW is not war, increased involvement absorbs valuable DOD dollars that are needed for operational requirements, readiness, modernization, and quality of life programs.¹¹ The time spent on MOOTW missions takes time away from the training required to perform the Army's fundamental purpose -- to "fight and win the nation's wars."¹²

U.S. National Interests

The increase in missions, which translates into greater troop deployment even in times of comparative peace, is a result of the current administration's policy of Engagement and Enlargement.¹³ This policy delineates the three basic categories of national interests that can merit use of our armed forces.

The first category is America's vital interests. These address the vitality, security, and survival of our nation and specifically address "the defense of U.S. territory, citizens, allies and our economic well being." American resolve to protect her vital interests was clearly demonstrated in the Persian Gulf during Operation Desert Storm. It was demonstrated again in 1994 when the U.S. implemented Operation Vigilant Warrior as Iraq again threatened aggression against Kuwait.¹⁴

The second case concerns interests that "importantly affect our national well being and the character of the world in which we live." Important U.S. interests, but not our national survival, are threatened. In these cases, the Administration policy is to use military force only if it will advance U.S. interests. Recent examples in this category include our deployments to Haiti, where American soldiers were sent in to uphold democratic principles, and Bosnia, where under United Nations command, U.S. forces helped implement the military aspects of the Dayton peace agreement.¹⁵

The third category that can merit use of our armed forces involves primarily humanitarian interests. The decision to use military forces to assist in humanitarian operations is based on using unique capabilities our military may possess, not its combat power. The relief operation in Rwanda, where U.S. assistance helped save hundreds of thousands of lives, is a recent example.¹⁶

The President has stated that as the world's greatest power, the United States has both global interests as well as responsibilities, and will "remain actively engaged in global affairs."¹⁷ He further states:

For the American people to be safer and enjoy expanding opportunities, our nation must work to deter would-be aggressors, open foreign markets, promote the spread of democracy abroad, combat transnational dangers of terrorism, drug trafficking and international crime, encourage sustainable development and pursue new opportunities for peace.¹⁸

Lastly, the President clearly expresses his commitment "to sustain our active engagement abroad in pursuit of our cherished goal -- a more secure world where democracy and free markets know no borders."¹⁹ There are no indications the Administration will waver from this policy of Engagement and Enlargement. There is also little doubt that the Army will continue to be used to assist in the implementation of this policy. As an integral part of the Total Army, the ARNG will need to continue in that role in the future

Filling Critical Needs

A key factor in both the present and future Army/ARNG equation is the relevancy of the ARNG. To remain relevant it must fill critical needs in the Army that cannot be readily filled by a better alternative source. It must be able to respond to mission assignments in a timely fashion. It must have the right type of units, trained and ready to accomplish the assigned mission. If the ARNG cannot fulfill these requirements, then it can not be considered relevant. If it is not relevant, it is a waste of taxpayer's money and funding will be allocated to other needs.

As has been already stated, the current administration feels strongly about using military forces for "purposes other than fighting and winning the nation's wars."²⁰ According to Army

doctrine, peacetime operations that could be included in Military Operations Other Than War are disaster relief, humanitarian assistance, support to domestic civil authorities, treaty verification, non-combatant evacuation operations, security and advisory assistance, arms control, nation assistance and shows of force. Also included are the more predictable peacekeeping operations, counterdrug operations, and noncombat support for insurgencies and counterinsurgencies.²¹

In response to the broadening of the Army roles and missions, the ARNG has changed in the post-Cold War environment. It is no longer solely a backup force of last resort for use in an all out war.²² Through force structure reorganization and distribution, the ARNG will soon have "50 percent of all combat units, 40 percent of all combat support units (including, by FY 99, almost 70 percent of the field artillery), and 37 percent of all combat service support."²³ As the Active Army reduces in strength and gets stretched thinner and thinner to support requirements, ARNG forces are increasingly being asked to support MOOTW missions.²⁴ In fact, the ARNG is essential to fulfilling these increased operational requirements today.²⁵ Increasing support to Active Army missions translates into increased ARNG deployments.

ARNG Deployments

In FY 95, more than 23,800 Army National Guard soldiers deployed overseas to support *Operation Uphold Democracy* in Haiti, the *Multi-national Force and Observers Mission* in the Sinai Desert and *Operation Joint Endeavor* in Bosnia and Germany, as well as other training. Types of ARNG units deployed included military police, medical, public affairs, transportation, maintenance, quartermaster and engineer. An additional 17,200 Guard soldiers and airmen were pressed into service to respond to domestic crises, natural disasters or to perform other state duties.²⁶ All indicators are that the trend to use the Army National Guard to supplement Active

Army missions will continue for the foreseeable future. Using the ARNG for MOOTW makes sense from a budgetary standpoint because “the ARNG is less expensive to maintain in peacetime than its active duty counterpart.” It also makes sense from the standpoint of “making best use of all your assets.”²⁷

Depending on the mission, you get trained and capable soldiers that only have to be paid full-time wages when they are called to active duty. When they are not on active duty they are paid only for their Inactive Duty Training days (IDT’s), which typically amount to the equivalent of four days pay per month, plus their fifteen day annual requirement for active duty for training (ADT). The FY 97 budget for the ARNG of approximately \$5.5B is less than ten percent of the total Army budget of approximately \$60B. That’s pretty good leverage for funding a complementary force for the Active Army.

Dual Missions

Not only does the ARNG have a primary *federal mission* to maintain properly trained and equipped units available for prompt mobilization for war, national emergency, or as otherwise needed, it also has a *state mission*. This is to provide trained and disciplined forces for domestic emergencies or as otherwise required by state law.²⁸ This mission provides an insurance policy for the individual state governors who, in a secondary role to the President of the United States, can activate the ARNG units in their state to respond to local domestic crises or natural disasters. Each state governor pays for guardsmen as they are activated for state duty, thereby providing an available, cost effective manpower pool to assist him in times of state crisis.

The ability of the ARNG to respond to a state governor’s need for assistance during state natural disasters -- floods, fires, earthquakes, hurricanes, etc. -- reduces state reliance on federal

assistance. Since the President frequently uses the military when federal assistance is requested, a state governor's use of the ARNG frequently translates into fewer missions being passed by the President to the active military. The most recent examples include the use of the ARNG to fight the floods in the southern, mid-western, and far western United States this winter.

Link to the Constituency

A last critical piece that the Army National Guard provides is a link between the civilian community and the military as partners in national defense.²⁹ The backing of the people of the nation is critical if our national military policies are to remain supported. It is also critical that missions that utilize callup of the ARNG be important to America's security interests.

Otherwise, the willingness of individual guardsmen to make ever-increasing personal sacrifices in order to carry out these missions, will diminish.³⁰ Employers have supported the loss of their employees during times of national need. They will be much less supportive if they feel that political leaders and military lobbyists are trying to use the ARNG to solve social and foreign problems that are in the political arena, and not the national security arena.³¹ The ARNG, "should not be used as a cheap manpower pool for public needs unrelated to national security." Furthermore, "excessive activation's for relatively unimportant contingencies will threaten public support for serious crises."³² We need to keep the ARNG available to respond in times of critical national need for both today and the future.

Alternative Solutions

Let us assume for reasons of discussion that the ARNG is not the right force to complement the Active Army. Continuing with our assumption that the defense budgetary dollars will continue to dwindle, either the roles and mission assignments of the Active Army

have to drastically diminish, or you have to hire part-time help (ex: civilian contractors, mercenaries, etc.) on an as needed basis.

Civilian contractors are currently used in some instances to provide services in lieu of the Army, particularly in the logistics arena. The real test to this type of support relationship will occur when the civilian contractor is required to go "in harm's way" to satisfy his contract. This constraint will likely limit the types of missions that civilian contractors will be willing to perform. Civilian contractors also tend to be expensive once they win a contract - certainly more expensive than a part-time soldier.

As a second alternate to the ARNG, consider using a mercenary force to supplement our Active Army. A "Have Gun...Will Travel" force, ready for hire, trained and equipped, tailorable to our needs, ready for use in a relatively short period of time, at a reasonable cost, is probably not a viable solution. The U.S. Government is not likely to go to a foreign country to hire a mercenary force. The possibility of large mercenary forces existing in the U.S. is remote. They are expensive to train and maintain, particularly when being utilized on a part-time basis. Additionally, the American people have shown a marked distrust for mercenary forces over the years. It is unlikely to accept one in place of its ARNG.

Filling Critical Needs --The Solution

The ARNG is filling critical needs as the Army attempts to satisfy increasing mission taskings in times of ongoing budget reductions. It also provides on call assets for state governors, reducing the need for states to request Federal assistance to deal with state emergencies. Further, it provides a critical link with the civilian community that helps maintain support for the government. As long as the Administration continues its policy of Engagement

and Enlargement and the DOD budget continues to decline, the ARNG will remain the most cost efficient way to supplement the Active Army force. The balance of this paper will discuss how the Army National Guard can become more of the *Just-in-Time* force it needs to remain an active and viable player as the Army moves into the 21st century.

Just-in-Time Force

The concept of *just-in-time* was developed by the Toyota Motor Company as a management philosophy which reduced cost in its manufacturing and related activities. The term *just-in-time* refers to “producing only what is needed, when it is needed, in just the right amount needed.”³³ The concept is easily transferable to describing an appropriately structured and trained Army National Guard. In partnership with the Active Army, the ARNG should determine what type of units are needed to effectively compliment the Active Army in consideration of current and projected downsizing. A realistic training program needs to be identified, developed, and implemented so that when activated and deployed, the ARNG can get to the area of operations ready to assume and successfully complete assigned missions. Careful planning and efficient training to Army standards will allow ARNG units to minimize required post deployment training time, allowing the appropriate number and type of units to arrive when needed. Consequently, the Active Army gets the right type of ARNG units, trained and ready, mobilized and deployed in the right numbers, at the right time, to the right place!

Innovative Training

There are several constraints that must be kept in mind when developing innovative training concepts. Federal law authorizes the number of paid training days per year for ARNG soldiers. This is limited to 48 Unit Training Assemblies (UTA) and 15 days of Annual Training

(AT). This equates to 39 available training days a year.³⁴ While there are some funds available for additional training, these 39 days constitute the training time available for the vast majority of ARNG soldiers. Considering the ongoing trend of reduction in the DOD budget, it is not likely that these authorizations will be increased. For the purpose of this paper, we will assume that Federal law remains as it is with respect to funding ARNG training.

It is important to remember that the typical Army National Guard soldier has a full time civilian job. The ARNG is only a part time job for them. Guardsmen have to balance their time between their full-time job, guard commitments, family, and personal responsibilities. They typically have already worked an 8-10 hour day before coming to an armory for a meeting, or a 40 hour or more work week before coming to a drill weekend. It is unrealistic to expect that a guardsman will be willing to spend much more time training than is currently allocated. Congress will not appropriate additional funding, civilian employers will not support additional time away from the job, and families will only sacrifice so much before demanding the ARNG soldier gets out of this part-time job.³⁵ This limited training time must be optimized, so that when the ARNG is needed to support the Active Army, it can be an effective and efficient force. The issue becomes how to optimize training results within the constraints of the authorized number of training days.

Clearly, with only 39 available training days per year, ARNG units can not train to proficiency on the same number of Mission Essential Task List (METL) items as the Active Army which has in excess of 250 available days per year.³⁶ The best way to address this issue is to first understand and accept this reality, and then determine which tasks a particular ARNG unit needs to be specifically trained for to satisfy the mission for which they will be activated and

deployed. This will require careful evaluation of needs by both the Active Army and ARNG. By focusing on a few, carefully selected METL tasks, the available training time for those tasks is maximized so that an ARNG unit can become proficient in these selected tasks. If the unit trains to standard, the result is a unit that can do these selected tasks with competence. Upon activation, these units can deploy to the battlefield in a matter of days or weeks, without extensive post-mobilization trainup time.³⁷ Units that train on a large number of METL tasks, will probably not be able to devote the necessary training time be able to do more than a couple of them to Army standards. These units will take substantially longer to become ready for deployment upon activation.

The key to this concept is to determine the specific requirements needed for accomplishment of the mission, and to bring the ARNG unit that has trained in those specific tasks to the battlefield.³⁸ If you activate a unit that has not focused on the specific METL tasks you require, it may take it weeks or months for that unit to be combat ready. This defeats our *just-in-time* objectives -- to have ARNG units trained and ready to quickly deploy in times of crisis to fill specific needs in the Active Army.

This method of leveraging our available training time to optimize the training readiness of National Guard units is not complex. It supports a concept of “doing less with less” that has floated around both Active Army and ARNG circles for years.³⁹ The problem is, no one has seriously attempted to implement it. For the ARNG to be able to respond to missions *just-in time*, this or a similar type of training plan will have to be implemented.

Leveraging Skills

The current ARNG combat fighting forces are nice to have for a “Strategic Reserve.”⁴⁰ However, the ARNG was unsuccessful in getting the three roundout brigades approved for deployment to the Gulf prior to the completion of Desert Storm.⁴¹ Due to the speed at which crises develop today and are projected to develop in the future, very likely there will not be time to get ARNG combat units in theater in time to affect future battles.⁴² Neither the ARNG nor the country can afford a capability that will probably never be used. If the ARNG is to remain a cost effective insurance policy, changes need to be made to keep it as a relevant part of the Army force structure.

One way to successfully implement the *just-in-time* concept in the ARNG is to use the appropriate civilian skills that its citizen soldiers develop and practice in their daily jobs, and apply them to their ARNG jobs. Properly utilized, these skills can be leveraged to reduce required military training time for certain types of units, thereby improving their readiness posture. Applications of this concept are utilized in some units today. A prime example is in medical units. Other examples include civilian police that are members in military police units, civilian truck drivers in transportation units, bulldozer operator, carpenters, and electricians in engineer units, etc.

It is probably time for some of the ARNG divisional combat units to be replaced with ones that can get to the battlefield quicker and be more relevant to the needs that future scenarios suggest. One example of a proposed new type of ARNG unit that could leverage civilian skills is the Psychological Profile Studies Detachment.

Psychological Profile Studies Detachment

There will be an increasing number of players across the world's military spectrum as the international balance of power transitions into the next century. More and more countries will obtain increased technological capabilities, to include weapons of mass destruction. American commanders tasked to deal with a variety of countries need to have an understanding of how the military leaders in those countries think and act.

The Psychological Profile Studies Detachment (PPSD) is a proposed ARNG unit that would develop psychological profiles of potential enemy military leaders down to division or brigade equivalent level, I.E., the operational decision makers. This unit would be composed of ARNG soldiers who in their civilian job are, for example, associate professors for Asian studies at X University or a graduate student in Far-Eastern studies at Y College.⁴³ Characteristically, unit members would include social psychologists, anthropologists, freudian psychologists, organizational psychologists, etc.⁴⁴ The Mission Essential Task List (METL) tasks for this specialized unit would be focused on developing psychological profiles on selected military leaders in foreign countries that have the potential to have adversarial relations with the U.S.

While these profiles would be developed during designated unit training assemblies, due to the nature of the tasks, drills could be done in remote locations using available technological capabilities. A unit member might use his personal computer at home. His research may have to be conducted at a library or other location. This could translate into fewer requirements for military facilities as opposed to typical ARNG units, thereby saving budget dollars. Unit members could be located all over the U.S. and could communicate with each other by telephone, fax machine, computer networks, or video teleconferencing.

Maximum time could be devoted to developing these leader profiles. The end product of the tasks specified in their METL would be foreign military leader profiles. During conflict or potential conflict, the developed enemy leader profiles would be provided to U.S. commanders for use in their decision making process. The profiles would focus on an analysis of what enemy commanders would most likely do in particular situations.

Profiles are currently developed by the U.S. Government on certain high ranking officials (primarily civilian) in selected foreign countries. However, funding cuts have severely restricted these programs, leaving a hole in our intelligence community capabilities.⁴⁵ Profiles are not currently developed by the U.S. Government on foreign military leaders except in selected cases.

Advantages to the ARNG and the Army of a unit of this type would include:

- 1) A soldier's civilian job expertise is leveraged to minimize military job training requirements.
- 2) Commanders will be provided developed profiles on opposing military commanders in a timely fashion (as long as the particular leader has been selected for study prior to the conflict).
- 3) Post mobilization training is no longer an issue. These soldiers are already trained up in their skills. They can provide additional analyses to the field using information technology capabilities from their own personal computers, I.E., they become a *Just-in-Time* force!

Conclusions

The nation's defense budget continues to decline while the taskings to the Active Army for MOOTW continue to increase. This trend is anticipated to continue unabated into the 21st century.

The Army National Guard is filling critical needs today in a federal capacity for the Active Army, and in a state capacity for state governors. It will be needed to fill the same types

of needs as we move into the next century. However, due to the speed at which future conflict are projected to develop, the ARNG will have to be able to respond more quickly when asked to mobilize and deploy. It must in effect become a *Just-in-Time* force.

To become a *Just-in-Time* force, the ARNG needs to change its approach to training. It has only a limited number of available training days, and must optimize the training it receives. In conjunction with the Active Army, it must select a limited number of METL tasks in which to become proficient. It must train to Army standard in these tasks. The Active Army needs to mobilize and deploy these ARNG units for these missions in which they have been specifically trained. When they arrive in theater, they will be available assets trained and ready for mission assignment, not liabilities requiring extensive post-mobilization train-up time.

Lastly, the ARNG needs to learn how to leverage the civilian skills of more of its citizen soldiers to its advantage. The PPSD is proposed as one example of how a unit specifically designed to utilize civilian skills could provide a valuable *Just-in-Time* force for the Army as it moves into the 21st century.

ENDNOTES

¹ Secretary of Defense William J. Perry, Report of the Secretary of Defense to the President and the Congress (Washington: U.S. Government Printing Office, March 1996), 252.

² It is acknowledged that the Army is currently calling upon both Army National Guard forces as well as Army Reserve forces to supplement the Active force. To narrow the focus of this paper, I will only address the use of Army National Guard forces for current and future operations.

³ Report to the Chief of Staff of the Army, "Army After Next Project" (Fort Monroe, VA: Training and Development Command, June 1996), 2. The Army After Next is the Army following Force XXI that will develop after about 2010 and extend to around 2025.

⁴ Perry, 225.

⁵ Perry, 252-253.

⁶ Gordon R. Sullivan and James M. Dubik, "War in the Information Age" (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, 6 June 1994), 11.

⁷ Togo D. West, Jr. and Dennis J. Reimer, A Statement on the Posture of the United States Army Fiscal Year 1997, Office of the Chief of Staff, U.S. Army, Congressional Activities Division, x.

⁸ Ibid., ix.

⁹ Ibid., xi.

¹⁰ Gordon R. Sullivan and James M. Dubik, "War in the Information Age" (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, 6 June 1994), 11.

¹¹ West, 4.

¹² Ibid., ix.

¹³ The White House, A National Security Strategy of Engagement and Enlargement (Washington: U.S. Government Printing Office, February 1996)

¹⁴ Ibid., 18.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid., iv.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Steven M. Duncan, Citizen Warriors (Novato, CA: Presidio Press, 1997), 213.

²¹ Ibid.

²² Deborah R. Lee, "Staying Ready and Strong" Defense 97. iss. 2: 38.

²³ Dennis J. Reimer, "National Guard Association of the United States," A "yellow paper" to the Army General Officers (October 1996).

²⁴ Lee, 38.

²⁵ West, 11.

²⁶ Army National Guard, Fiscal Year 1997 Posture Statement (Washington: National Guard Bureau), Executive Summary.

²⁷ Lee, 36.

²⁸ Army National Guard. Fiscal Year 1997 Posture Statement, 1.

²⁹ Perry, 226.

³⁰ Duncan, 217.

³¹ Duncan, 212.

³² Duncan, 233-234.

³³ Kiyoshi Suzuki, The New Manufacturing Challenge (New York: The Free Press, 1987), 6.

³⁴ Army National Guard, Fiscal Year 1997 Posture Statement, A-3.

³⁵ Duncan, 217-218, 222, 234.

³⁶ Ibid., 227.

³⁷ Ibid., 229.

³⁸ Ibid., 221, 231.

³⁹ This concept was discussed by the author in his capacity as the commander of the 898th Engineer Battalion (Combat) part of the 81st Infantry Brigade (Mechanized), Washington Army National Guard, an Enhanced Brigade. The subject was discussed on more than one occasion, but was specifically addressed during a Summer 1995 Quarterly Training Brief with BG Don Haggland, Assistant Adjutant General - State of Washington and BG Lee Legowik, Commander, 81st Infantry Brigade (Mech).

⁴⁰ Charles E. Heller, "Total Force: Federal Reserves and State National Guards," (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, 7 December 1994), 16.

⁴¹ Ibid.

⁴² Charles E. Heller, "Twenty-first Century Force: A Federal Army and a Militia," (Carlisle Barracks, PA: U.S. Army War College, Strategic Studies Institute, 14 June 1993), 41.

⁴³ COL Paul J. Cunningham, National Guard Advisor to the Commandant, U.S. Army War College, interview by author, 17 January 1997, Carlisle Barracks, PA.

⁴⁴ William Rodier, Central Intelligence Agency, Senior Intelligence Representative to the U.S. Army War College, interview by author, 17 January 1997, Carlisle Barracks, PA.

⁴⁵ Craig T. Johnson of the Central Intelligence Agency, current member of the U.S. Army War College Class of 1996-97, interview by author, 9 April 1997, Carlisle Barracks, PA.

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